

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 03/39119

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D231/12 C07D253/04 A61K31/415 A61P9/00 A61P3/00
C07D261/08 C07D233/20 C07D233/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | JP 11 130753 A (TAIHO YAKUHI KOGYO KK) 18 May 1999 (1999-05-18) examples | 1-45, 47-67 |
| X | WO 01/16120 A (DOMINIANNI SAMUEL J ;MATTHEWS DONALD P (US); MICHELLYS PIERRE YVES) 8 March 2001 (2001-03-08) claim 1; examples | 1-4, 52-64 |
| X | WO 02/100403 A (GONZALEZ-GARCIA MARIA ROSARIO ;GREEN JONATHAN EDWARD (US); WARSHAW) 19 December 2002 (2002-12-19) claim 1; examples | 1-4, 52-64 |
| X | EP 0 442 448 A (SQUIBB BRISTOL MYERS CO) 21 August 1991 (1991-08-21) claim 1; examples 26,27 | 1-45 |
| | --- -/-- | |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

22 Apr11 2004

Date of mailing of the international search report

14/05/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| P,X | WO 03/099793 A (FUKATSU KOHJI ;HARA RYOMA (JP); KIMURA HIROYUKI (JP); MIZUFUNE HID) 4 December 2003 (2003-12-04) claim 1; examples ---- | 1-67 |
| P,X | WO 03/084916 A (BRATTON LARRY DON ;FILZEN GARY FREDERICK (US); GEYER ANDREW GEORGE) 16 October 2003 (2003-10-16) claim 1; examples ----- | 1-67 |

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 55-59, 61, 63, 64 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compounds.
2. ☒ Claims Nos.: 1-48, 52-67 (all in part)
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-48,52-67 (all in part)

Present claims 1-48,52-65,67 relate to an extremely large number of possible compounds or the use of these compounds. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Furthermore, it is not clear which compounds are meant in claim 66. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the compounds according to claims 49-51.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

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| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
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| JP 11130753 | A | 18-05-1999 | NONE | |
| WO 0116120 | A | 08-03-2001 | AT 252091 T AU 7073400 A CA 2382966 A1 DE 60005973 D1 DK 1206457 T3 EP 1206457 A1 JP 2003508389 T WO 0116120 A1 US 2003045558 A1 US 2004019090 A1 US 6417212 B1 | 15-11-2003 26-03-2001 08-03-2001 20-11-2003 16-02-2004 22-05-2002 04-03-2003 08-03-2001 06-03-2003 29-01-2004 09-07-2002 |
| WO 02100403 | A | 19-12-2002 | CA 2448552 A1 EP 1401434 A1 NZ 529550 A WO 02100403 A1 | 19-12-2002 31-03-2004 19-12-2003 19-12-2002 |
| EP 0442448 | A | 21-08-1991 | US 4956379 A US 5034409 A US 4992439 A US 4956376 A US 5077305 A US 4983610 A US 5021415 A US 4970225 A US 5011851 A CA 2036192 A1 EP 0442448 A2 JP 6080630 A | 11-09-1990 23-07-1991 12-02-1991 11-09-1990 31-12-1991 08-01-1991 04-06-1991 13-11-1990 30-04-1991 14-08-1991 21-08-1991 22-03-1994 |
| WO 03099793 | A | 04-12-2003 | WO 03099793 A1 | 04-12-2003 |
| WO 03084916 | A | 16-10-2003 | WO 03084916 A2 US 2003225158 A1 | 16-10-2003 04-12-2003 |